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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,381	06/29/2001	Zhiyong Zhao	TT4315	9540

7590 10/28/2003  
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EXAMINER

TRAN, HUAN HUU

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/896,381

Applicant(s)

ZHAO ET AL.

Examiner

Huan H. Tran

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 is/are allowed.
- 6) ☒ Claim(s) 18, 20-22 and 24 is/are rejected.
- 7) ☒ Claim(s) 19 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 18, 21, 24 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Vella (US Patent 5545257).

As to claim 18, Vella discloses a depolarization method comprising the step of selectively exposing a portion of a fabrication tool to a plasma for a selected time interval. See Col. 2, lines 45-59.

As to claim 21, Vella discloses that the step of generating the plasma is done with a plasma flood gun (Col. 3, line 53-59)

As to claim 24, Vella teaches that the plasma flood gun can be mounted near the target 13 which is placed a vacuum region of the fabrication tool.

3. Claims 18, 21, 24 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Farley et al. (US Patent 6271529).

As to claim 18, Farley et al. discloses a depolarization method comprising the step of selectively exposing a portion of a fabrication tool to a plasma for a selected time interval.

As to claim 21, Farley et al. discloses that the step of generating the plasma is done with a plasma flood gun 100.

As to claim 24, Farley et al. teaches that the plasma flood gun can be mounted near the target which is placed a vacuum region of the fabrication tool.

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***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Vella in view of Aoki (JP 8-167595).

Vella discloses the claimed invention except it does not show that the fabrication tool (e.g. substrate carriage 14) comprises an insulating pad.

Aoki shows such fabrication tool (pad 4).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the fabrication tool such as pad 4 taught in Aoki as the substrate carriage 14 in Vella to support the target 13 to prevent scratching, as well as to reduce particulate contamination.

6. Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Vella in view of Farley et al (US Patent 6271529).

Vella discloses the claimed invention except that it does not explicitly teach that the plasma is formed from a noble gas.

Farley et al. teaches the use of a plasma flood gun for generating plasma formed from a noble gas such as xenon or argon to neutralize the ion beam and the work surface.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a noble gas plasma generator as taught by Farley et al. in the device/method of Vella to introduce a neutralizing charge to the target 13.

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***Allowable Subject Matter***

7. Claims 19, 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 19 and 23, prior art of record do not teach or suggest the claimed condition when the plasma flood gun is applied.

8. Claims 1-13, 14-17 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter: As to claims 1-13, 14-17, prior art of record does not appear to teach or suggest the claimed depolarization method in which the interval for applying the plasme is selected to reduce polarization of a portion of a fabrication tool whereby interference with a motion of a device being processed by said fabrication tool is not observed.

***Response to Arguments***

10. Applicant's arguments with respect to all pending claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (703) 308-0749. The examiner can normally be reached on M-F with Monday off, from 7:30am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Fuller can be reached on (703) 308-0079. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1749.



Huan H. Tran  
Primary Examiner  
Art Unit 2861

hht